CLAIMS

1. A method of pointing a fine fluid jet onto a zone or an object, especially in laser welding, machining or surfacing, said jet being emitted from a blowing nozzle (5), said nozzle having an ejection channel (10) comprising a terminal portion (11) of substantially circular cross section having a diameter not exceeding 5 mm, a light source (3) placed on the axis of the ejection channel (10) upstream of said nozzle (5) in the direction of flow of the flux of said fluid, generating a monochromatic or polychromatic nondivergent light beam, at least one wavelength of which is between 400 and 760 nanometers, coaxial with the ejection channel (10) and propagating inside said channel in the flow direction of said fluid, in which, with the flow of said fluid being temporarily interrupted, by relative displacement of said object or said zone or said light beam, said light beam is pointed onto said object or said zone and said fine fluid jet is sent onto said zone or said object.

2. The method as claimed in claim 1, characterized in that the fluid is a gas.

3. The method as claimed in either of claims 1 and 2, characterized in that the fluid contains fine particles.

4. A device for implementing the method as claimed in any one of claims 1 to 3, characterized in that it comprises a nozzle (5) for blowing a fluid, said nozzle having an ejection channel (10) comprising a terminal portion (11) of substantially circular cross section having a diameter not exceeding 5 mm, a laser light source (3) placed on the axis of the ejection channel (10) upstream of said nozzle (5) in the direction of

flow of the flux of said fluid, generating a monochromatic nondivergent light beam, at least one wavelength of which is between 400 and 760 nanometers, coaxial with the ejection channel (10) and propagating inside said channel in the flow direction of said fluid, and

- means for supplying said nozzle with fluid.

5. The device as claimed in claim 4, characterized in that the light source (3) is isolated from said fluid jet by an impermeable separator (8).

6. The device as claimed in either of claims 4 and 5, characterized in that the length of the terminal portion of the fluid ejection channel (10) is greater than or equal to five times the diameter of the terminal portion (11) of the ejection channel (10).

7. The device as claimed in any one of claims 4 to 6, characterized in that it includes an alignment means (6) for ensuring coaxiality of said fluid jet and of said light flux.

8. A welding, machining or surfacing installation, characterized in that it comprises at least one device as claimed in any one of claims 4 to 7.

9. A welding, machining or surfacing installation, characterized in that the welding, machining or surfacing head is firmly connected to a cradle on which at least one device as claimed in any one of claims 4 to 7 is mounted, said cradle being able to be oriented, rotationally or translationally, so as to precisely point said fluid jet.

10. The installation as claimed in claim 8 or 9, characterized in that the welding, machining or surfacing is carried out by a laser beam.